

# *La Costa Avenue Interim Striping Plan*

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June 6, 2011



# *La Costa Avenue Study Area*

## *El Camino Real to Rancho Santa Fe Road*



# *La Costa Avenue Improvement Project Update*

## Project Objective

- Develop a cost effective, community-preferred plan to address traffic speeds and safety on La Costa Avenue in a way that respects the residential character and arterial function of the roadway



# *Community Preferences*

- Increase safety for all users
  - Accommodate all modes of transportation (auto, bike, and pedestrian)
  - Reduce travel speeds
  - Increase sight distance for driveway access





# *Community Preferences*

- Design reflects residential neighborhood
  - Maintain on-street parking
  - Minimize the number of traffic signals
  - Increase landscaping
  - Design improvements need to be effective without enforcement



# *Community Preferences*

- Don't divert traffic to residential streets
  - Do not penalize drivers traveling at the posted speed limit
  - Avoid congestion
- Develop a cost effective plan





# Travel Time Study

La Costa Avenue

Levante Street

El Camino Real

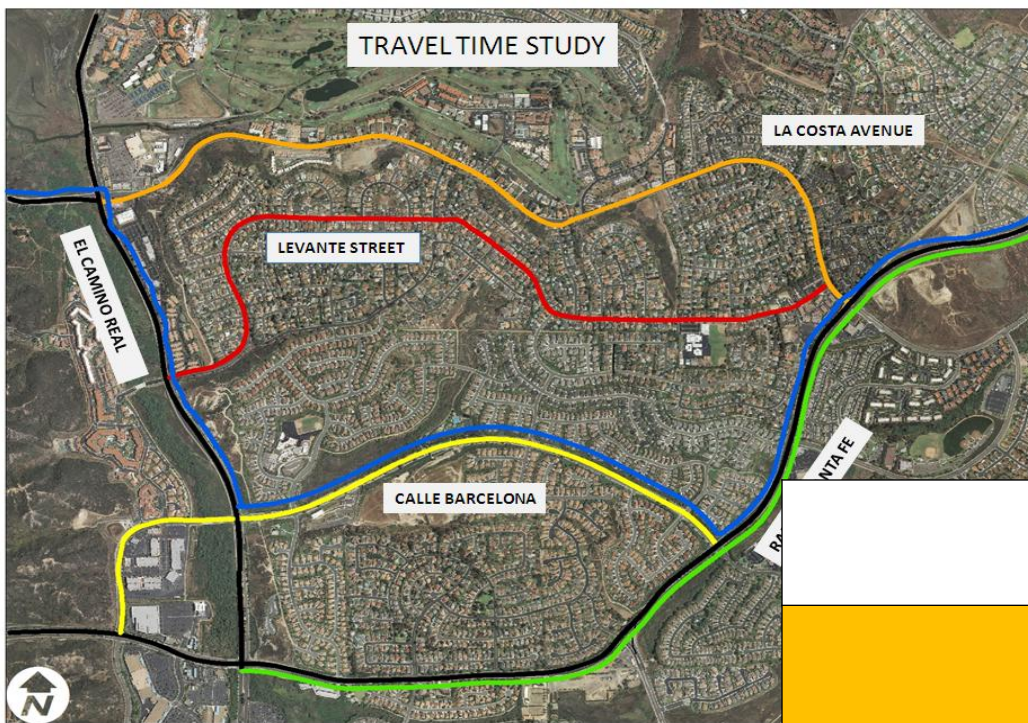
Calle Barcelona

Rancho Santa Fe Road





# TRAVEL TIME STUDY



Direction & Route	Total Time
La Costa Avenue to I-5	9-14 min
Calle Barcelona to Leucadia to I-5	8-10 min
Rancho Santa Fe Road to Leucadia to I-5	10-11 min
La Costa to Calle Barcelona to La Costa to I-5	13 min
La Costa to Levante to I-5	15 min





# *Next Meeting*

- June 23 at Stagecoach Community Center at 7:00 p.m.
- Staff will propose a preferred alternative and receive input from public
- Goal of final meeting is to reach general consensus on alternative that best meets project objectives and community preferences



# *Questions about La Costa Avenue Improvement Project*

- Comments & questions
- Public Comment period
- Return for TSC consideration
- no action required at this time





# *La Costa Avenue*

## *Interim Striping Plan*

- Need to change character of La Costa Avenue in response to recent legal settlement involving a collision
- City staff concluded that issues in court documents identified safety concerns
- Plaintiff's Traffic Engineer focused on inadequate stopping site distance for posted speed limit



# *La Costa Avenue Interim Striping Plan*

- Reasonable measures need to be implemented in a reasonable timeframe to address these traffic safety issues
- Need to change character of road to gain design immunity





# *February 8 City Council Staff Proposals*

- Traffic signs warning of upcoming residential driveways
- Speed feedback signs
- Painted median to prohibit left turn access/egress from driveways
- Prohibit on-street parking



# *City Council Action*

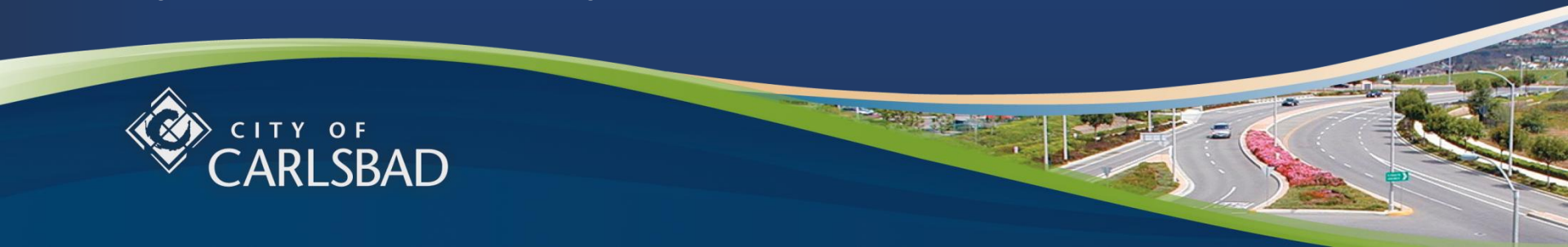
- Approved immediate installation of warning signs and speed feedback signs
- Rejected proposed prohibition of on-street parking
- Directed staff to prepare an interim striping plan





# *March 22 City Council Meeting*

- Council reviewed conceptual plan for reducing La Costa Avenue to one lane in each direction
- Directed staff to submit plans at June 7<sup>th</sup> Council meeting
- Council approved scope and funding for La Costa Avenue Improvement Project
- Develop long-term vision for corridor using 3 public workshops



# *April 28 Public Workshop results*

- General agreement that safety should be improved for residential driveway access
- Serious concerns that reducing number of lanes would create congestion
- Several requests to reduce scope of interim striping plan
- Staff developed the “hybrid” design



# *Hybrid Alternative*

- Leave eastbound lanes in current configuration
- Leave westbound lanes unchanged from Rancho Santa Fe Road thru Romeria Street
- Taper down to one westbound travel lane thru residential area
- Convert second travel lane into bike lane





# *La Costa Avenue Hybrid Alternative*



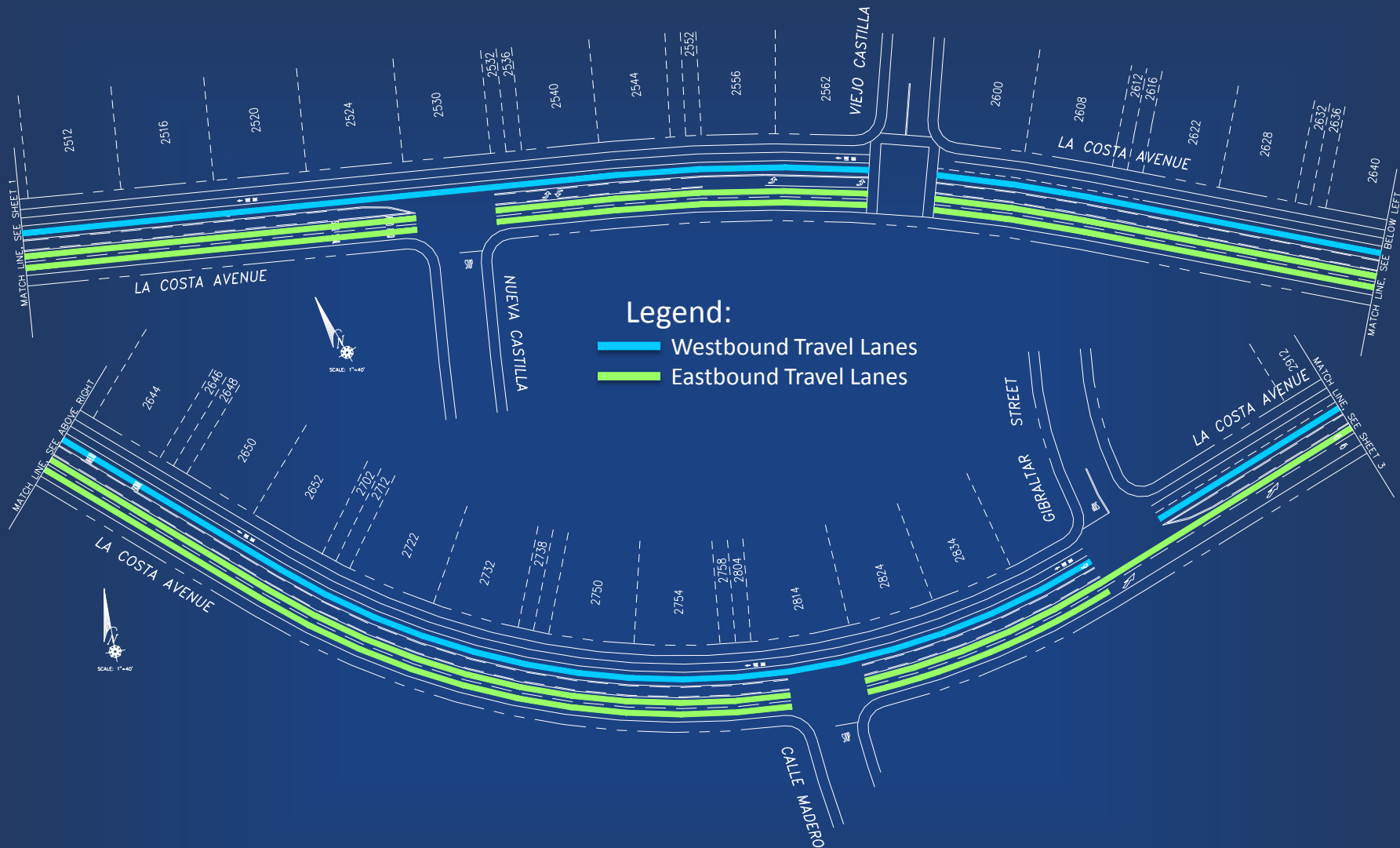
# *Hybrid Alternative Benefits*

- Increases SSD
- Maintains on-street parking
- May reduce vehicle speed
- Limited scope minimizes traffic impact
- Reasonable approach for interim solution











# *KOA LOS Findings*

- Each of the three internal signalized intersections along the length of the project presently operate during peak hours at completely acceptable levels of service (A and B) and delay and continue to do so into the future conditions projected in this analysis and under all alternatives. Results were generally similar under both methods of analysis.
- The segmental analysis produced results that were acceptable (LOS=D or better) in the existing and future scenarios in the peak conditions for all of the alternative configurations.





# *LOS Summary using ICU Method (AM/PM)*

Intersection	Existing Conditions		Forecasted Traffic	
	Current Configuration	Hybrid Alternative	Current Configuration	Hybrid Alternative
Viejo Castilla	A/A	A/A	A/A	B/A
Romeria St	A/A	A/A	A/A	A/A
Cadencia St	A/B	A/B	B/B	B/B



# *Mid-Block LOS Results (AM/PM)*

## *West of Nueva Castilla Way*

Location	Current Peak Hour Volume	Forecasted Peak Hour Volume	Current LOS	Forecasted LOS
Current Configuration	1230 (e/b)	1501	A/A	A/A
Hybrid Alternative	1230 (e/b)	1501	A/B	B/D



# *City of Carlsbad*

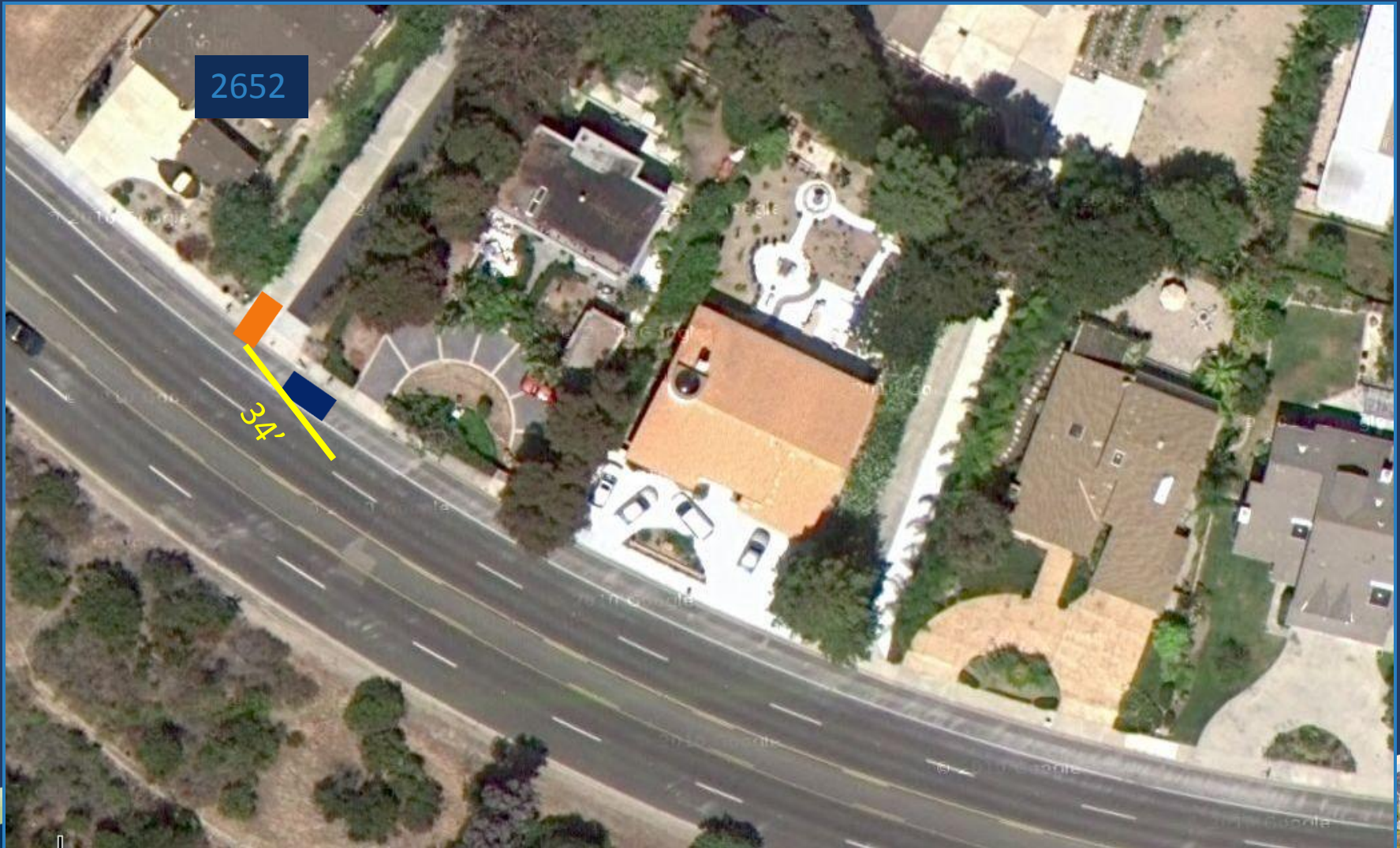
## *Street Design Criteria*

Road Classification	Design Speed (mph)	Stopping Sight Distance (ft)
Local Street	25	150
Collector Street	30	200
Secondary Arterial	40	<b>300</b>
(45 mph critical speed)	45	<b>360</b>
Major Arterial	50	430





Driver pulls out to edge of driveway  
Vehicle parked 5 feet from driveway



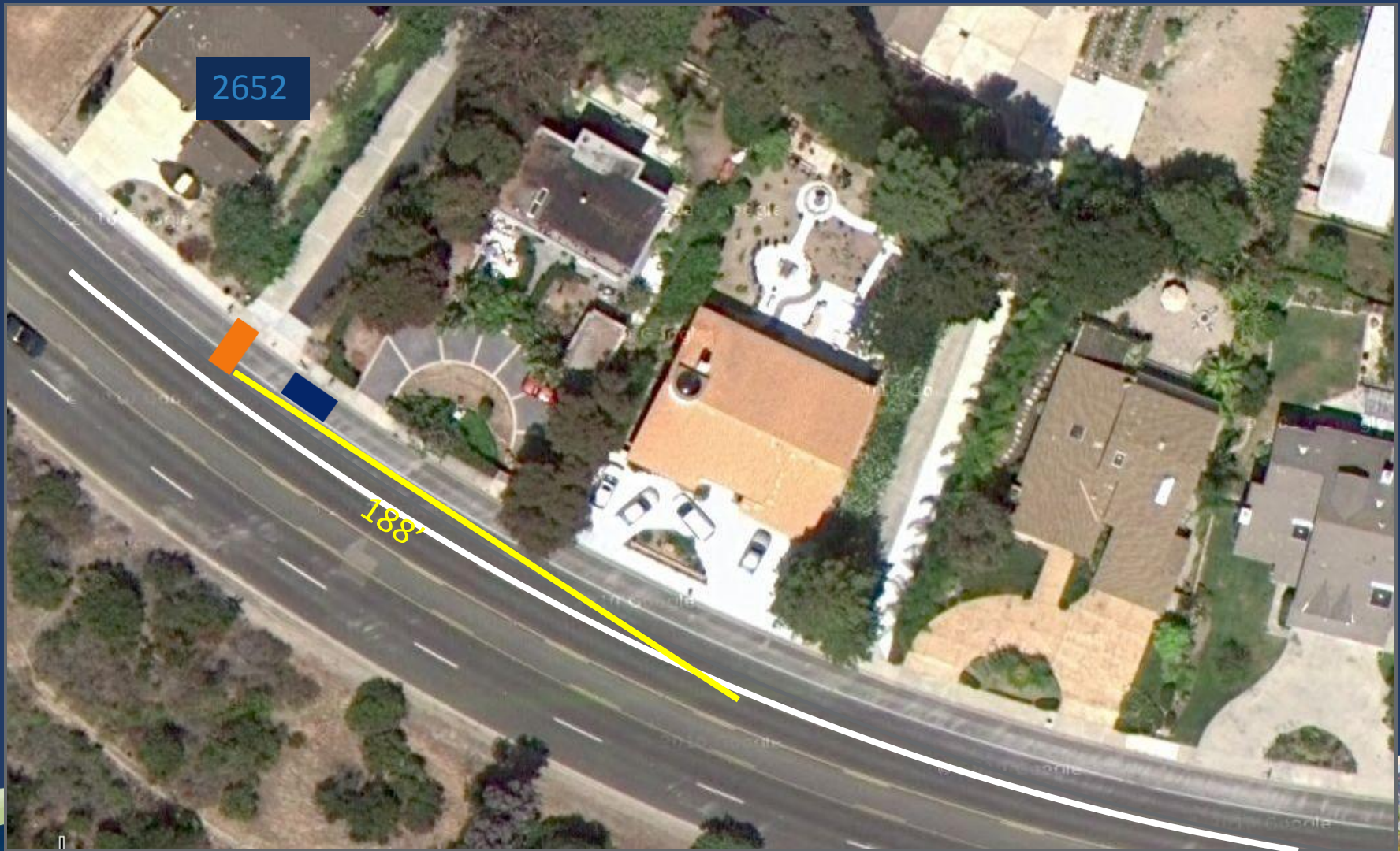


Driver pulls out to edge of existing travel lane  
Vehicle parked 5 feet from driveway





Driver pulls out to edge of proposed bike lane  
Vehicle parked 5 feet from driveway





Driver pulls out to edge of travel lane  
Vehicle parked 55 feet from driveway





Driver pulls out to edge of proposed bike lane  
Vehicle parked 55 feet from driveway





Driver pulls out to edge of travel lane  
No On-Street Parking





Driver pulls out to edge of proposed bike lane  
No On-Street Parking



# *Questions about La Costa Avenue Interim Striping Plan*

- Comments & questions
- Public Comment period
- Return for TSC comments 7 questions
- TSC can consider motions at this time

